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2 **CLAIMS**

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4 I claim:

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6 1. An apparatus for fluid treatment comprising:

7 an external substantially supported rigid course filter forming a outer surface
8 of the filtration allowing a fluid to pass into the apparatus:

9 an inner tube disposed within the rigid course filter, the inner tube not being
10 permeable to a fluid, the inner tube having a different diameter than the rigid course
11 filter, forming a first annular volume between the rigid course filter and the inner
12 tube, the inner tube having at least one portal to allow fluid to pass into a lower
13 pooling volume:

14 a first end cap attached to the lower end of the inner tube, and receiving the
15 rigid course filter:

16 a second end cap attached to the upper end of the inner tube and receiving the
17 inner course filter, one of the first end cap and the second end cap having an exit
18 portal for fluid defined therein;

1 a permeable member covering the at least one portal separating the lower
2 pooling volume and the first annular volume:

3 an amount of a bimetallic treatment composition held within the lower pooling
4 volume, the amount of bimetallic treatment composition being enough to provide
5 sufficient volume to allow fluidization of the bimetallic treatment composition when
6 a fluid is passed upwardly through the water treatment composition:

7 a compacted block of adsorbable impurity treatment media having a diameter
8 less than the inner diameter of the inner tube forming a second annular volume, and
9 an inner open cylindrical portion forming the inside surface of the second annular
10 volume attached to the second end cap above the pooling volume, which can allow
11 a fluid be fluidized around it and allow the fluid to pass through it; and

12 an exit portal for a fluid formed by the open cylindrical portion allowing a fluid
13 passed through the apparatus to exit the apparatus.

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15 2. The filtration apparatus of claim 1 wherein the bimetallic treatment is
16 selected from bimetallic alloys including copper.

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18 3. The filtration apparatus of claim 1 wherein the compacted block of
19 adsorbable impurity treatment media includes charcoal particles.

1 4. The filtration apparatus of claim 3 wherein the compacted block of
2 adsorbable impurity treatment media further includes compacted zeolite.

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5 5. The filtration apparatus of claim 2 wherein the binary alloy of copper is
6 an alloy of between 20 and 80 weight percent copper and between 80 and 20 weight
7 percent zinc.

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9 6. The filtration apparatus of claim 1 wherein the flow of water upwardly
10 is between about 0.5 to 5 gallons of water per pound of bimetallic treatment per
11 minute.

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13 7. The filtration apparatus of claim 4 wherein the zeolite is selected from
14 the group consisting of chabazite, mordenite, erionite, faujasite, clinoptilolite, and
15 ZSM-5.

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17 8. The filtration apparatus of claim 1 wherein the filtration apparatus is
18 mounted vertically top allow fluidization of media inside the apparatus.

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2 9. A method for filtering water comprising:
3 passing water through an external substantially supported rigid course filter
4 into a first annulus formed between the rigid course filter and an inner tube:
5 passing the water in the inner tube down the inner tube to a portal formed
6 within the inner tube covered by a permeable member.
7 passing the water through a permeable member covering the portal separating
8 the lower pooling volume and the annular volume:
9 forcing the water up through an amount of a bimetallic treatment composition
10 held within a lower pooling volume thereby fluidizing the bimetallic treatment
11 composition within a second annular volume:
12 passing the water through a compacted block of adsorbable impurity treatment
13 media having an inner open cylindrical portion: and
14 allowing the water to pass through an exit portal.

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16 10. The method of claim 9 wherein the bimetallic treatment is selected from
17 the group consisting of bimetallic alloys and copper alloys, charcoal particles and
18 granular zeolite.
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1 11. The filtration apparatus of claim 9 wherein the bimetallic treatment is
2 selected from bimetallic alloys including copper.

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4 12. The filtration apparatus of claim 9 wherein the compacted block of
5 adsorbable impurity treatment media includes charcoal particles.

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7 13. The filtration apparatus of claim 12 wherein the compacted block of
8 adsorbable impurity treatment media further includes compacted zeolite.

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10 14. The filtration apparatus of claim 13 wherein the binary alloy of copper
11 is an alloy of between 20 and 80 weight percent copper and between 80 and 20
12 weight percent zinc.

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14 15. The filtration apparatus of claim 14 wherein the flow of water upwardly
15 is between about 0.5 to 5 gallons of water per pound of bimetallic treatment per
16 minute.